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RANOLAZINE VERSES AMIODARONE FOR ATRIAL FIBRILLATION PROPHYLAXIS FOLLOWING CORONARY BYPASS SURGERY

ACC Poster Contributions
Ernest N. Morial Convention Center, Hall F
Tuesday, April 05, 2011, 9:30 a.m.-10:45 a.m.

Session Title: Clinical Electrophysiology --Interaction of Atrial Fibrillation with Heart Failure, Surgery, and Atrial Size
Abstract Category: 26. Clinical Electrophysiology–Supraventricular Arrhythmias
Session-Poster Board Number: 1161-405

Authors: *David K. Murdock, Rod Passman, Haris Subacius, Ronald Miles, Aspirus Wausau Hospital, Wausau, WI, Northwestern University, Evanston, IL*

Background: Atrial fibrillation (AF) is common after coronary artery bypass surgery (CABG), and increases morbidity and cost. Amiodarone (AM) reduces post-CABG AF. Ranolazine (RZ), an anti-anginal agent, also prolongs atrial refractoriness, inhibits after-depolarizations and triggered activity; effects which could decrease AF. This study compares RZ versus AM for the prevention of post-CABG AF.

Methods: A retrospective cohort study of patients undergoing CABG at Aspirus Hospital between June 2008 and April 2010. Patients received either AM (400 mg preoperative followed by 200 mg twice daily for 10-14 days) or RZ (1500 mg preoperative followed by 1000 mg twice daily for 10-14 days). The primary endpoint was any identified AF.

Results: 393 consecutive CABG patients (mean age 65 + 10 yrs, 72% male) received either AM (N=211 (53.7%)) or RZ (N=182 (46.3%)). Post-CABG AF occurred in 26.5% of AM treated patients compared to 17.5% of RZ treated patient (p=.035). Univariate predictors of post-CABG AF included AM use, age, COPD, and congestive heart failure. Multivariate predictors include AM use (OR 1.7, 95% CI 1.01-2.91; p=0.045 vs. RZ), Age (OR 2.2 per 10 yrs; 95% CI 1.63-2.95; p<0.001), and COPD (OR 1.86, 95% CI 1.00-3.43; p=0.049). There was no difference in the risk of adverse events between the two therapies.

Conclusions: RZ was independently associated with a significant reduction of post-CABG AF compared to AM with no difference in adverse events. Randomized studies should be conducted to confirm these results.